

WHAT IS CLAIMED IS:

1. A stump grinding apparatus comprising:

5 a disc defining a direction of rotation and a center axis, the disc including axially spaced side surfaces and a generally circular outer peripheral surface, the outer peripheral surface defining an outer circumference of the disc, the outer circumference having a maximum diameter substantially larger than an axial thickness of the disc, there being at least eight recesses formed in the outer peripheral surface and spaced circumferentially apart, each recess including leading and trailing walls spaced circumferentially apart and
10 a generally radially outwardly facing floor interconnecting the leading and trailing walls; and

peripheral cutting assemblies mounted in respective ones of the recesses, each cutting assembly comprising:

15 a holder disposed in the respective recess and fixed to the disc, the holder having leading and trailing end surfaces spaced circumferentially apart and facing the leading and trailing walls of its respective recess, the holder further including radially outer and inner surfaces through which a
20 hole extends, the radially inner surface facing generally toward the floor of the recess and including an open pocket;

5 a cutter tooth mounted in the holder and including a shank
extending through the hole, wherein a threaded first end
portion of the shank extends within the pocket, the cutter tooth
further including a cutter head disposed at a second end
portion of the shank; and

a nut threaded onto the first end of the shank and seated
within the pocket to be shielded during a cutting operation.

2. The stump grinding apparatus according to claim 1 wherein a first
plurality of the cutting assemblies include first cutter teeth, and a second
10 plurality of the cutting assemblies include second cutter teeth; the first and
second cutting assemblies alternating with one another in a circumferential
direction of the wheel; each first cutter tooth including a generally flat cutter
surface facing in the direction of rotation of the disc; each second cutter
tooth including a cutter surface facing in the direction of rotation and defined
15 by surface portions converging in the direction of rotation, the surface
portions intersecting to form a cutter edge.

3. The stump grinding apparatus according to claim 2 wherein the
cutter edge lies substantially in an imaginary plane containing the shank's
center axis.

20 4. The stump grinding apparatus according to claim 3 wherein the
cutter edge is convexly curved.

5. The stump grinding apparatus according to claim 1, further
including a plurality of side cutting units mounted to, and projecting from, the
side surfaces.

6. The stump grinding apparatus according to claim 1 wherein at least some of the holders are disposed in mutually different angular orientations relative to a plane of the disc, wherein the angular orientation of each holder is defined in relation to an imaginary axis extending through both the leading and trailing end surfaces to position the cutting edges of such holders at mutually different angular orientations relative to the outer peripheral surface of the disc.

7. The stump grinding apparatus according to claim 6 wherein each holder includes a plurality of gauge marks selectively positionable with respect to a part of the wheel to define respective angular orientations of the holder.

8. The stump grinding apparatus according to claim 1 wherein the radially inner surface of the holder is spaced radially outwardly from the floor of the respective recess.

9. The stump grinding apparatus according to claim 1, wherein the leading and trailing end surfaces of the holder are welded respectively to the leading and trailing walls of a respective recess.

10. A stump grinding apparatus comprising:

a disc defining a direction of rotation about a center axis, the disc including axially spaced side surfaces and a generally circular outer peripheral surface, the outer peripheral surface defining an outer circumference of the disc, the outer circumference having a maximum diameter substantially larger than an axial thickness of the disc, there being at least eight recesses formed in the outer peripheral surface and spaced circumferentially apart, each recess

including leading and trailing walls spaced circumferentially apart and a generally radially outwardly facing floor interconnecting the leading and trailing walls; and

5 peripheral cutting assemblies mounted in respective ones of the recesses, each cutting assembly comprising:

a holder disposed in the respective recess and fixed to the disc, and

a cutter tooth mounted in the holder;

10 the peripheral cutting assemblies comprising first and second peripheral cutting assemblies having first and second cutter teeth, respectively, each first cutter tooth including a generally flat cutter surface facing generally in the direction of rotation of the disc; each
15 second cutter tooth including a cutter surface facing generally in the direction of rotation and defined by surface portions converging in the direction of rotation, the surface portions intersecting to form a cutter edge; wherein the first peripheral cutting assemblies are disposed in some of the recesses, and the second peripheral cutting assemblies are disposed in others of the recesses.

20 11. The stump grinding apparatus according to claim 10 wherein the cutting edge of each second cutter tooth lies substantially in an imaginary plane containing the shank's center axis.

12. The stump grinding apparatus according to claim 11 wherein the cutting edge is convexly curved.